



## ***CUSTOMIZED ASSESSMENT BLUEPRINT***

### **MISSOURI INFORMATION TECHNOLOGY**

#### **SEQUENCE 5**

**Test Code: 8145**

**Version: 01**

**Computer Applications 25%**

**Desktop Publishing 25%**

**Multimedia 25%**

**Web Design 25%**

**Specific competencies and skills tested in this assessment:**

#### ***Computer Applications***

##### **Execute Basic Computer Operations**

Manage and transfer files

Identify file formats and extensions

Perform basic troubleshooting and maintenance

Identify hardware and software specifications to purchase a computer (e.g., RAM, processor, hard drive, software, and price)

Save files to various storage devices (e.g., CDs, USB, hard drive, DVD)

Determine appropriate software applications for tasks

##### **Construct Business Documents using Word Processing Applications**

Create and format business documents (e.g., letters, memos, outlines, newsletters, and reports)

Set printer specifications

Proofread and edit documents

Manipulate the features of word processing software to enhance documents (e.g., headers, footers, tabs)

Create and format tables

Insert and manipulate graphics

Create documents using templates

Prepare envelopes and labels

Illustrate the use of enhancement features (e.g., borders, lines, shading, bold, bullets)

Demonstrate use of automatic features (e.g., AutoCorrect, spell-check, and thesaurus)

## *Missouri Information Technology – Sequence 5 (continued)*

### **Construct Business Documents using Spreadsheet Applications**

Create, design, and edit spreadsheets  
Create basic formulas with addition, subtraction, multiplication, and division  
Format cell, column, and row contents (e.g., font, color, alignment, shading, decimal)  
Format columns and rows  
Use basic functions/formulas (e.g., auto sum, average, IF)  
Create, format, and edit charts and graphs  
Set print specifications for formulas, graphs, worksheets  
Use relative and absolute cell references

### **Construct Business Documents using Database Applications**

Create and manipulate a database  
Distinguish between different field types (e.g., text, numeric)

### **Construct Business Documents using Presentation Applications**

Create, format, and edit presentations  
Enhance presentations (e.g., sound, animation, graphics, transitions, and video)  
Set print specifications for outline, slides, handouts, etc.  
Utilize proper presentation etiquette (e.g., number of bullets, lines, words, and notes)  
Integrate input from various software applications

### **Explore the Internet and Online Classroom Portals**

Demonstrate principal usages of online communication (e.g., upload, download, attaching files)  
Identify copyright principles (e.g., public domain, copy protection, licensing)

## *Desktop Publishing*

### **Discuss Foundational Concepts**

Identify and apply tools and palettes.  
Explain copyright issues related to graphic arts/desktop publishing (e.g., legal, ethical)  
Demonstrate sensitivity to bias (e.g., culture, gender, age)  
Plan a preliminary layout for a publication using manual or digital tools  
Develop a work schedule to meet deadlines  
Use correct grammar, punctuation, and spelling

### **Perform Publication Layout**

Set appropriate page layout options (margins, columns, double-sided, facing pages, page numbering)

## *Missouri Information Technology – Sequence 5 (continued)*

### **Demonstrate Typography Concepts**

Compose text (e.g., headings, captions, body text)  
Import text files and other word processing documents into publications  
Explain the usage of font types (e.g., serif, sans serif, decorative)  
Manipulate text features and formats (e.g., wordwrap, hyphenations, drop cap, color, gradient, text path)

### **Manage Images Appropriately**

Create images  
Determine appropriate image file formats (e.g., bmp, tiff, jpeg, gif, pict, eps)

### **Demonstrate Design Concepts**

Plan the proper use of white space  
Apply the proper use of color  
Create an effective focal point (e.g., primary, secondary)  
Create appropriate headlines  
Position captions  
Apply design principles (e.g., movement, balance, symmetry)  
Apply layering techniques in publications  
Match the design to the appropriate audience

### **Create Business Promotional Materials**

Create a flyer and advertisement  
Create stationery sets (e.g., labels, business cards, notepads, invoices, letterhead)  
Create multi-page, multi-column documents (e.g., newsletters, magazines, menus, programs)  
Create brochures (single/multiple)  
Create promotional items (e.g., CD covers, T-shirts, bumper stickers)

### **Perform Print Process**

Use print preview or WYSIWYG layout before printing  
Select an appropriate printer and printer attributes (e.g., duplexing, tray size, paper size)  
Convert desktop publication to format for exporting/Web posting (e.g., PDF, HTML)

### **Develop a Portfolio**

Explain ways portfolios can be used

## *Multimedia*

### **Apply Foundational Concepts**

Utilize hardware to manipulate various types of media (e.g., cameras, microphones, graphic tablets)  
Use organizational skills to plan multimedia products (e.g., storyboarding, outlining, scripting, task delegation)  
Create text using typography principles

## *Missouri Information Technology – Sequence 5 (continued)*

### **Manage Media Files**

Develop electronic file management systems (project folders, file naming)  
Convert files to various formats (e.g., .flv to .avi, .mov to .wmv, .psd to .jpg)

### **Manage Images**

Acquire and import images from a variety of sources (e.g., scanners, cameras, phones)  
Apply appropriate image mode for intended application (e.g., convert RGB, CMYK, grayscale)  
Compose images using layers and selections  
Edit images (e.g., color, filter, tint, contrast, brightness)  
Manipulate images (e.g., mask, resize, crop, scale, group/ungroup, zoom, and pan)  
Create original artwork using illustrative software

### **Create Audio Files**

Compare and contrast audio formats common size and quality (mp3, .wav, midi)  
Rip and import audio from a variety of sources (e.g., CD/DVD, video, Internet)  
Create original audio (e.g., voice, instrument)  
Mix audio (e.g., layering, trimming, level adjustments)  
Apply effects to audio (e.g., noise reduction, amplify, echo)  
Apply editing techniques

### **Create Animations**

Create frame-by-frame animations  
Apply motion and shape tweens  
Modify bitmaps (trace bitmap, convert to symbol)  
Use layers and object modification techniques (e.g., transform, alpha transparency, filters)  
Add interactivity to animations with buttons, menus, and scripting

### **Create Video Files**

Develop pre-production documents (e.g., storyboard, shot list)  
Apply basic filming techniques (e.g., camera angles, camera movement, lighting, sound)  
Access, capture, and import a variety of file sources converting file types, if necessary (e.g., audio, video, graphics)  
Arrange video clips, audio clips, titles, and still images on timeline  
Manipulate clips (e.g., link/unlink, adjust transparency, set properties, trim, adjust speed/duration)  
Synchronize audio with video

### **Create and Deliver Electronic Presentations**

Identify components of effective electronic presentations  
Import files into a presentation (e.g., text, images, audio, video)  
Apply advanced editing techniques (e.g., build, effects, timing, animation, transitions)

## *Missouri Information Technology – Sequence 5 (continued)*

### **Create and Utilize Emerging Technologies**

Utilize and create collaborative electronic tools (e.g., wikis, blogs, forums)

Utilize web-based technologies to publish media (e.g., screencasts, podcasts, vodcasts, itunes)

### **Develop Workplace Readiness Skills**

Compare copyright and patent laws for multiple media between educational and workplace settings (e.g., video, text, sound, pictures)

Identify career/self-employment opportunities in multimedia production

## *Web Design*

### **Apply Introductory Principles**

Explain how resolution affects Web page creation

### **Design an Effective Web Site**

Define Web page design principles and elements

Evaluate Web sites based on design elements and principles (e.g., alignment, color, navigation, user feedback)

Plan an organized layout

Select an appropriate navigational structure

Use Web-safe colors and fonts

Employ proofreading and editing techniques

Apply Web accessibility standards

### **Demonstrate Image Creation and Manipulation Skills**

Recognize the different image types and their extensions (e.g., gif, jpg)

Use layering techniques in image editing program to better manage images (e.g., ordering, arranging, naming)

Optimize an image to improve load time

### **Demonstrate Page Creation Skills**

Use Web authoring software to create Web pages

Identify and apply HTML tags and attributes for basic Web page design (e.g., title, metadata, table, link)

Create and use a template

### **Apply Effective Web Page Management Techniques**

Organize all content files into folder management

Create meta tags to be utilized by a variety of search engines

Apply copyright laws in all Web-related projects

### **Use Advanced Web Creation Techniques**

Create interactive design elements (e.g., rollover, swap image, slideshow)

Use Cascading Style Sheets (CSS) to control page elements (e.g., external, internal, inline)

*Missouri Information Technology – Sequence 5 (continued)*

**Written Assessment:**

Administration Time: 3 hours

Number of Questions: 152

***Areas covered:***

- 25% Computer Applications
- 25% Desktop Publishing
- 25% Multimedia
- 25% Web Design

***Sample Questions:***

To navigate to the next cell horizontally and then vertically in a word processing table, press the \_\_\_\_\_ key.

- A. tab
- B. enter
- C. alt
- D. command

Which of the following fields would be considered a text data type?

- A. (231) 555-1212
- B. \$137.89
- C. 3/2/2013
- D. 24

Converting information from one program to another is called

- A. importing
- B. exporting
- C. copying and pasting
- D. cutting and pasting

A tilt is a motion of the camera head which moves it

- A. left and right
- B. up and down
- C. in and out
- D. side to side

Two types of hyperlinks are

- A. internal and external
- B. inside and outside
- C. primary and secondary
- D. private and public